Robust Data Comm

Making Industrial Data Flow Like Water ... Safely, Silently, & Sanely

Co. & GST Reg. No: 19-9600 372-Z

ISO 9001 : 2000 Cert.No. : 1582

Model: rdc422ir

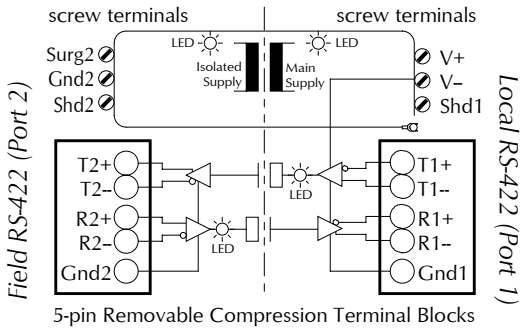
Isolated RS-422 Repeater

The rdc422ir safely connects two RS-422 devices without introducing ground loops and provides added protection from damaging field surges with 600w transient (spike) suppressor diodes. It also doubles the permitted cable length. 2.5 kV of optical isolation exists between the local and field ports. Options for galvanic isolation between the DC supply and RS-422 ports include partial (2-port) or full (3-port) isolation. Selectable jumpers allow the use of either a 100-ohm or 220-ohm internal terminating resistor.

Other options include: 9-pin D-sub shell or removable 5-pin compression terminal block; DC supply of 5V or flexible 9 to 36 V, 2 or 3-port galvanic isolation.

A unique combination of features such as isolation, industrial design, small size, DIN rail mount, user indication, and DC supply make the rdc422ir a very engineer-friendly device for your industrial data communication system.

Block Diagram



5-pin Removable Compression Terminal Blocks

Note: 9-pin D-shell connector option available

Order Information

rdc422ir - □ - □ - □

ConnectorConfiguration

- **cc** Compression terminal (C-term) both ports
- cd C-term field RS-422, D-sub female local port
- dd D-sub female for both ports

Galvanic Isolation Configuration

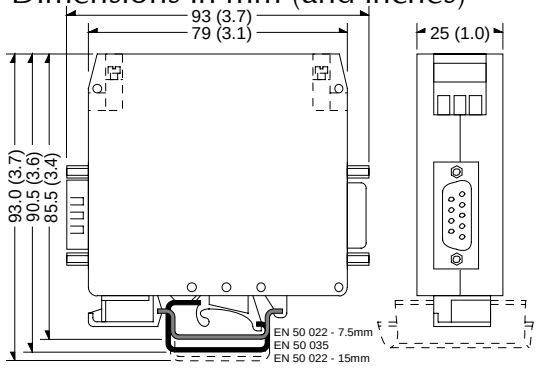
- **2p** 2-port, RS-232 sgnd = DC supply ground
- 3p 3-port, 500v isolation between local & supply

Power Supply Configuration

- **5v** 5v +/- 10% DC Supply
- dv 9 to 36v DC Supply

Note : Boxes in Bold denote default options

Dimensions in mm (and inches)



Specification

RS-422 ports

Signal Type : EIA/RS-422A, EIA/RS-485A
Voltage Level : -7 to +12 vDC
Permitted Surge : +/- 25 vDC

Isolation (ISO/IEC 9549)

RS-422 to RS-422 : 2500 v (optical, 5kV test)
Supply to field : 2500 v (galvanic, 3kV test)
Supply to local : 2-port = none ; 3-port = 500v

Power Supply:

9v to 36v DC : 1.1 W (45 mA @ 24 V)
5v DC +/- 5% : 0.8 W (160 mA @ 5 V)
LEDs (green) indicate isolated power status

Communication:

Max Speed : at least 115Kbps over standard distance
Character Setting : transparent, no configuration required
User Indications : Each receive signal has LED (yellow)
Standard Distance : 1000m for EIA/RS-422
Practical Distance : less than 3000m for RS-422
(requires quality, low-cap cable)

Mechanical / Environment

Operating Range : 0C to +65C
Storage Range : -40C to +100C
Relative Humidity : 10 to 90% RH, non-condensing
Terminals : wire up to 2.5mm (12 AWG)
D-shell connecter : 9-pin, 30µ gold pins/sockets rated 500
Case Material : cycles
nylon polymide, fungus and termite resistant
Weight : self-extinguishing
Mounting Rail : approx 130g
DIN EN 50 022 or DIN EN 50 035

Copyright © 1995 RDC

(Version 1.0) *Specifications subject to change without notice.*

www.robustdc.com

Robust DataComm Pte Ltd (USA) 26471 Portola Pkwy #1E-242, Foothill Ranch CA 92610-1743, +1,972-248-7466
(International) 18 Kaki Bukit Road 3 #02-08 Entrepreneur Business Centre Singapore 415978, +65,6487-5624